



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09 413,444	10/06/1999	JONATHAN D. ALBERT	INK-069	2022

21323 7590 08/05/2003

TESTA, HURWITZ & THIBEAULT, LLP
HIGH STREET TOWER
125 HIGH STREET
BOSTON, MA 02110

EXAMINER

THOMPSON, TIMOTHY J

ART UNIT PAPER NUMBER

2873

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/413,444

Applicant(s)

ALBERT ET AL.

Examiner

Timothy J Thompson

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 102-144 and 148-166 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 102, 105-107, 132-137, 139, 140, 142, 143, 148 and 153-162 is/are rejected.
- 7) ☒ Claim(s) 103, 104, 108-131, 138, 141, 144, 149-152 and 163-166 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 102, 105-107, 132-137, 139, 140, 142, 143, 148, 153-162 are rejected under the judicially created doctrine of double patenting over claim 1 of U. S. Patent Pub. No. 2002/0089735(Albert) in view of Crowley (U.S. Patent No. 5,914,805), U. S. Patent Pub. No. 2002/0018042(Albert II) and U. S. Patent Pub. 6,172,798(Albert III) since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Regarding claim 102, Albert discloses an electrophoretic ink having a plurality of non spherical capsules dispersed in a binder, at least one of the capsules being

Art Unit: 2873

enclosed by a deformable membrane(claim 17) deformed into a non-spherical shape(claim 1; note the membrane inherently has a deformable membrane since the capsule is deformed by the mechanical force). Albert does not disclose the plurality of capsules form substantially a single layer when the ink is dispersed on the substrate. However, Crowley discloses the plurality of capsules form substantially a single layer(claim 7) when the ink is dispersed on the substrate(claim 1). It would have been obvious to one skilled in the art at the time of the invention to form the capsules in a single layer on a substrate as shown by Crowley, in the electrophoretic display of Albert, since as shown by Crowley electrophoretic displays commonly form capsules in a single layer on a substrate since this allows the narrowest possible construction of the display, as opposed to stacking or offsetting the capsules.

Regarding claim 105, Albert discloses the capsules are closely packed(This is a subjective limitation which can not be quantified therefore the display of Albert obviously meet this limitation since tightness of the arrangement of the capsules is in the eye of the beholder).

Regarding claims 106, 107, 136, 137 Albert in view of Crowley, Albert does not discloses the specific operating values and materials. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 132, 134, 135, it would have been obvious to one skilled in the art at the time of the invention to choose a specific material as claimed , since it has

been held to be within the general skill in the art to select a known material on the basis of suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. In the instant case.

Regarding claim 133, Albert does not disclose the substrate includes at least one electrode. However Albert III, discloses the substrate includes at least one electrode(claim 6). It would have been obvious to one skilled in the art at the time of the invention to have the substrate includes at least one electrode as shown by Albert III in the electrophoretic display of Albert, since as shown by Albert III, including an electrode in the substrate is commonly done so as to place the electrode in a position to drive the display.

Regarding claim 139, Albert does not disclose the capsule having at least one electrophoretic particle dispersed in at least one suspended fluid. However Albert III discloses at least one electrophoretic particle dispersed in at least one suspended fluid (claim 1). It would have been obvious to one skilled in the art at the time of the invention to use a capsule having at least one electrophoretic particle dispersed in at least one suspended fluid as shown by Albert III, in the electrophoretic display of Albert, since as shown by Albert III, capsules having at least one electrophoretic particle dispersed in at least one suspended fluid are commonly used in electrophoretic displays for providing the mechanism for either darkening or lightening the display surface. Regarding the mathematical limitation pertaining to the optically active fraction. It would have been obvious to one having ordinary skill in the art at the time of the invention was

Art Unit: 2873

made to provide optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 140 Albert discloses , the binder is a curable material(claim 5)

Regarding claim 142, Albert discloses an electrophoretic ink having a plurality of non spherical capsules dispersed in a binder, at least one of the capsules being enclosed by a deformable membrane(claim 17) deformed into a non-spherical shape(claim 1; note, the membrane inherently has a deformable membrane since the capsule is deformed by the mechanical force). Albert does not disclose the plurality of capsules form substantially a single layer when the ink is dispersed on the substrate or the mathematical limitations. However, Crowley discloses the plurality of capsules form substantially a single layer(claim 7) when the ink is dispersed on the substrate(claim 1). It would have been obvious to one skilled in the art, at the time of the invention, to form the capsules in a single layer on a substrate as shown by Crowley, in the electrophoretic display of Albert, since as shown by Crowley electrophoretic display commonly form capsules in a single layer on a substrate since this allows the narrowest possible construction of the display as opposed to stacking or offsetting the capsules. Regarding the mathematical limitations, It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide optimum values, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 143, Albert discloses an electrophoretic ink having a plurality of non spherical capsules dispersed in a binder, at least one of the capsules being enclosed by a deformable membrane(claim 17) deformed into a non-spherical shape(claim 1; note the membrane inherently has a deformable membrane since the capsule is deformed by the mechanical force). Albert does not disclose the plurality of capsules form substantially a single layer when the ink is dispersed on the substrate, the capsule having at least one electrophoretic particle dispersed in at least one suspended fluid or the mathematical limitation pertaining to the optically active fraction. However, Crowley discloses the plurality of capsules form substantially a single layer(claim 7) when the ink is dispersed on the substrate(claim 1). It would have been obvious to one skilled in the art at the time of the invention to form the capsules in a single layer on a substrate as shown by Crowley, in the electrophoretic display of Albert, since as shown by Crowley electrophoretic displays commonly form capsules in a single layer on a substrate since this allows the narrowest possible construction of the display as opposed to stacking or offsetting the capsules. Regarding the capsule having at least one electrophoretic particle dispersed in at least one suspended fluid, Albert III discloses this (claim 1). It would have ben obvious to one skilled in the art, at the time of the invention, to use a capsule having at least one electrophoretic particle dispersed in at least one suspended fluid as shown by Albert III, in the electrophoretic display of Albert, since as shown by Albert III, capsules having at least one electrophoretic particle dispersed in at least one suspended fluid are commonly used in electrophoretic displays for providing the mechanism for either darkening or lightening the display surface.

Art Unit: 2873

Regarding the mathematical limitation pertaining to the optically active fraction. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 148, Albert discloses the capsules are closely packed (This is a subjective limitation which can not be quantified therefore the display of Albert obviously meet this limitation since tightness of the arrangement of the capsules is in the eye of the beholder).

Regarding claims 153-162, it would have been obvious to one skilled in the art at the time of the invention to choose a specific material as claimed, since it has been held to be within the general skill in the art to select a known material on the basis of suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. In the instant case.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Allowable Subject Matter

Claims 103, 104, 108-131, 138, 141, 144, 149-152, 163-166 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

Art Unit: 2873

independent form including all of the limitations of the base claim and any intervening claims. With the important features being the shape of the capsule, the specific color of the display, the elements being flexiblethe capsules form a film, the layer of material substantially filling any interstices formed with in the film.

Conclusion

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this office action. The early submission of formal drawings will permit the office to review the drawings therein before the application is passed to issue. This will avoid possible delays in the issue process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Thompson whose telephone number is (703) 305-0881. If the examiner can not be reached his supervisor, Georgia Epps, can be reached on (703) 308-4883.

T.J.T.
7/28/03

